

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR
PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A steering gear-box stiffener for use with a vehicle equipped with a "re-circulating ball" or "worm and sector" steering gear-box, consisting essentially of an outboard bearing to support the said gear-box sector shaft, a means of attaching said bearing to the said sector shaft by the use of a replacement sector-shaft nut, a means of securing said bearing to the vehicle frame in the proper location by the use of a mounting arrangement generally comprised of a bearing mounting plate and crossmember rigidly attached and spanning the vehicle frame rails.
2. A stiffener as described in claim 1, in which said bearing mounting plate is attached to an existing vehicle crossmember
3. A stiffener as described in claim 1, in which the said crossmember is welded to the said frame rails.
4. A stiffener as described in claim 1, in which the said crossmember is bolted to the said frame rails.
5. A stiffener as described in claim 1, in which the said crossmember is attached to the said frame rails by means of intermediary brackets suitably attached to the said frame rails.
6. A stiffener as described in claim 1, 2, 3, 4, or 5, in which the said mounting arrangement is constructed of carbon steel, stainless steel, or aluminum.
7. A stiffener as described in claim 6, in which the said bearing mounting plate and said crossmember are formed or cast integrally.
8. A stiffener as described in claim 6 or 7, in which the said bearing is of a self-aligning type.
9. A stiffener as described in claim 6 or 7, in which said bearing is fixed.
10. A stiffener as described in claim 8 or 9, in which the said replacement sector shaft nut is constructed with an integral portion to facilitate connection with said bearing.
11. A stiffener as described in claim 10, in which said replacement sector shaft nut is constructed of carbon steel, or stainless steel.

12. A stiffener as described in claim 11, in which the said replacement sector shaft nut is constructed with a reduced cross section to facilitate breakage of said nut in a collision to avoid damage of existing steering gear.
13. A stiffener as described in claim 9, in which said bearing is designed to mate directly with the existing sector shaft nut or sector shaft directly, obviating the need for the said replacement sector shaft nut.